ELSEVIER

Ecological Modelling 95 (1997) 333–334

ECOLOGICAL MODELLING

# Contents of *Ecological Modelling*, Vol. 95

VOL. 95 NO. 1 — 1 FEBRUARY 1997

An informational synthesis of ecosystem structure and function
R.E. Ulanowicz and L.G. Abarca-Arenas (Solomons, MD, USA) . . . . . 1
Limiting similarity for coexistence of lake herring (*Coregonus artedii*) and chubs (*Coregonus hoyi*)
A.L. Jensen (Ann Arbor, MI, USA) . . . . . 11
Preliminary evaluation of sampling strategies to estimate the species richness of diurnal, terrestrial birds using Monte Carlo simulation
H.M. Neave, R.B. Cunningham, T.W. Norton and H.A. Nix (Canberra, ACT, Australia) . . . . . 17
Prey patchiness and larval fish growth and survival: inferences from an individual-based model
B.H. Letcher and J.A. Rice (Raleigh, NC, USA) . . . . . 29
Ideal free distribution of copepods under predation risk
J. Giske, R. Rosland, J. Berntsen and Fiksen (Bergen, Norway) . . . . . 45
Is parasitism a missing ingredient in model ecosystems?
S. Morand (Perpignan, France) and E. Arias Gonzalez (Merida, Mexico) . . . . . 61
Temperature effects on stocks and stability of a phytoplankton–zooplankton model and the dependence on light and nutrients
J. Norberg (Stockholm, Sweden) and D. DeAngelis (Knoxville, TN, USA) . . . . . 75
Use of power index and two-phase density approach to study fine root dynamics
H.-i. Wu (College Station, TX, USA), T.J. Hatton (Canberra, ACT, Australia) and R.L. Stoker (College Station, TX, USA) . . . . . 87
Using machine learning techniques in the construction of models. II. Data analysis with rule induction
S. Džeroski, J. Grbović (Ljubljana, Slovenia), W.J. Walley (Stafford, UK) and B. Kompare (Ljubljana, Slovenia) . 95
Contemporary variations of terrestrial net primary production: The use of satellite data in the light of an extremal principle
G.A. Alexandrov and T. Oikawa (Tsukuba, Japan) . . . . . 113

VOL. 95 NOS. 2,3 — 14 FEBRUARY 1997

Long-term foraging optimization in northern shovelers
P.J. DuBowy (College Station, TX, USA) . . . . . 119
The reduced model of self-oscillating dynamics in an anaerobic system with sulfate-reduction
A.O. Fomichev (Dolgoprudny, Moscow region, Russia) and V.A. Vavilin (Moscow, Russia) . . . . . 133
Modelling the effect of spatial scale and correlated fire disturbances on forest age distribution
D. Boychuk (Ajax, Ont., Canada), A.H. Perera, M.T. Ter-Mikaelian (Sault Ste. Marie, Ont., Canada), D.L. Martell (Toronto, Ont., Canada) and C. Li (Sault Ste. Marie, Ont., Canada) . . . . . 145
Comparative study of flow-indices in lake-ecosystems and the implication for maturation process
I. Aoki (Hamamatsu, Japan) . . . . . 165
A simulation study of the spatio-temporal dynamics of the unionid mussels
H.L. Lee (Knoxville, TN, USA) and D.L. DeAngelis (Coral Gables, FL, USA) . . . . . 171

An analysis of the form of density dependence in a simulation model of a seasonal breeder undergoing control
G.C. Smith (Worplesdon, UK) . . . . . 181
A physiologically-based model of a self-motivated hare in relation to its ecology
M. Rizzotto and S. Focardi (Ozzano dell' Emilia, Italy) . . . . . 191
A forest soil vegetation atmosphere model (ForSVA), I: Concepts
P.A. Arp (Fredericton, New Brunswick, Canada) and T. Oja (Tartu, Estonia). . . . . 211
A forest soil vegetation atmosphere model (ForSVA), II: Application to northern tolerant hardwoods
T. Oja (Tartu, Estonia) and P.A. Arp (Fredericton, New Brunswick, Canada). . . . . 225
A process-based, terrestrial biosphere model of ecosystem dynamics (Hybrid v3.0)
A.D. Friend, A.K. Stevens (Midlothian, UK), R.G. Knox (Greenbelt, MD, USA) and M.G.R. Cannell (Midlothian, UK) . . . . . 249
On the usefulness of overparameterized ecological models
P. Reichert and M. Omlin (Dübendorf, Switzerland) . . . . . 289
Residence time of matter and energy in econetworks at steady state
B.-P. Han (Guangzhou, PR China) . . . . . 301
Period 'bubbling' in simple ecological models: Pattern and chaos formation in a quartic model
J. Vandermeer (Ann Arbor, MI, USA) . . . . . 311
The interaction of spatial scale and predator–prey functional response
T.W. Blaine (Providence, RI, USA) and D.L. DeAngelis (Coral Gables, FL, USA) . . . . . 319

**Author index** . . . . . 329

**Subject index** . . . . . 331

**Contents of *Ecological Modelling*, Vol. 95** . . . . . 333